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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,217	12/18/2001	Igor Liokumovich	42P12564	5026

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EXAMINER

GUILL, RUSSELL L

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,217

Applicant(s)

LIOKUMOVICH ET AL.

Examiner

Russ Guill

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7-28 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an Amendment filed July 7, 2006. No claims were cancelled. Claims 23 - 28 were added. Claims 1, 3 - 5 and 7 - 28 are pending. Claims 1, 3 - 5 and 7 - 28 have been examined. Claims 1, 3 - 5 and 7 - 28 have been rejected. Claims 1, 3 - 5 and 7 - 28 are allowable over the prior art of record.
2. The Examiner would like to thank the Applicant for the well-presented response, which was useful in the examination process. The Examiner appreciates the effort to perform a thorough analysis, and make appropriate arguments and amendments.
3. This Office Action is NON-final due to new rejections under 35 USC § 101.

Response to Arguments

4. Regarding claims 3, 7 and 8 rejected under 35 USC § 112, second paragraph:
 - a. Applicant's amendments to the claims overcome the rejections.
5. Regarding claims 1, 9 and 16 rejected under 35 USC § 103:
 - a. Applicant's arguments and amendments to the claims overcome the rejections. Accordingly, the rejections are withdrawn.

Claim Objections

6. Claim 9 is objected to because of the following informalities: In line 11, a period appears to be embedded at the start of the newly added material. Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 1, 3 - 5 and 7 - 28** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. Regarding **claims 1, 3 - 5 and 7 - 28**, the claims do not appear to produce a useful and tangible result to form the basis of a practical application needed to be statutory. A computer program product that does not produce a useful and tangible result is rejected, despite the computer program product itself being tangible.

b. Regarding **claims 1, 3 - 5, 7 - 8 and 23 - 28**, the claims appear to be directed to an arrangement of software being claimed as a set of functional descriptive material per se, and as such, is non-statutory.

Allowable Subject Matter

9. **Claims 1, 3 - 5, 7 - 8 and 23 - 28** are allowable over the prior art of record.

10. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

11. The following is a statement of reasons for the indication of allowable subject matter:

12. While Devine (U.S. Patent Number 6,397,242) teaches a monitor that translates machine instructions into translated code, and a virtual machine that executes the translated code stored in a memory, and a kernel that detects exceptions occurring in the virtual machine and transfers control between the virtual machine and the monitor according to a type of the exceptions, and Klaiber ("The Technology Behind Crusoe Processors") teaches a monitor modifying original values in a descriptor table to prevent the translated code from being accessed, thereby preventing the translated code from being modified, and Bugnion (U.S. Patent Number 6,496,847) teaches an operating system executing on a host machine also supports a full platform simulator, none of these references taken either alone or in combination with the prior art of record teaches a system for simulating machine instructions on a host machine, specifically including:

- a. Regarding **claim 1**: a full platform simulator "that includes device models, the simulator to execute the translated code that represents simulated operating system code to be executed on the virtual machine",
- b. Regarding **claims 9 and 16**: a full platform simulator "that includes device models, the simulator to execute the translated code that represents simulated operating system code to be executed on a virtual machine",
- c. Regarding **claim 23**: a full platform simulator "that includes device models, the simulator to execute the translated code that represents simulated operating system code to be executed on the virtual machine, thereby allowing the target processor to be simulated without disturbing the operating system running on the host machine",

in combination with the remaining features and elements of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure:

- a. Giles (U.S. Patent Application Publication 2002/0133810) teaches a virtual machine and translation of code.
- b. Rosenblum et al.; "Complete computer system simulation: the SimOS approach", 1995, Parallel & Distributed Technology: Systems & Applications, IEEE, pages 34 - 43; teaches a simulated operating system environment.

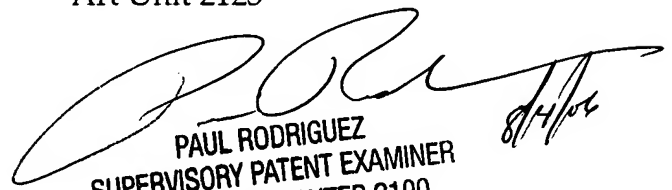
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russ Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

Russ Guill
Examiner
Art Unit 2123


PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
8/4/04